

ADDENDUM TO SPECIFICATION 50019S, ISSUE 4, DATED JANUARY, 1964 - INSTRUCTIONS FOR INSTALLING MULTIPLE WIRE DISTRIBUTOR UNITS LD8, LD13, OR LD801 IN MODEL 28 ASR SET (ON LXD TYPE LCXB BASE), LD9, LD16, OR LD800 IN MODEL 28 SEQUENTIAL SELECTOR SET, 173358 MODIFICATION KIT TO ADD TERMINAL BID ASSEMBLY TO LAC203\*\*, LAC204\*\* OR LAC205\*\*

On Page 2, Paragraph 2.g. add the 164990 Cable Assembly to the list of loose parts.

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**INSTRUCTIONS FOR INSTALLING MULTIPLE WIRE DISTRIBUTOR UNITS  
LD8, LD13, OR LD801 IN MODEL 28 ASR SET (ON LXD TYPE LCXB BASE);  
LD9, LD16, OR LD800 IN MODEL 28 KSR AND RO SETS; LD10 IN  
MODEL 28 SEQUENTIAL SELECTOR SET, 173358 MODIFICATION KIT  
TO ADD TERMINAL BOARD ASSEMBLY TO LAC203\*\*, LAC204\*\*, OR  
LAC205\*\***

The chart below pertains to Bell System only

Model 28 Unit (Teletype Name)	Teletype Code	Bell System Reference	Bell Code
Multiple Wire Distributor	LD8 LD9 LD10 LD13 LD16 LD800 LD801	Distributor	28J-1 28J 28J-2  28L
Transmitter Distributor	LXD3 LXD4	Transmitter Distributor	28E 28H
Keyboard	LK5 LK16 & up	Base- (Send-Receive)	28C 28D & up
Base	LB4/146 LB4/218	Base- (Receive Only)	28B 28B-1
Cabinet	LAC203** LAC204**	Teletypewriter Cabinet	28C** 28B**
Sequential Selector Base	LSB1	Sequence Selector Base	28A

Refer to standardized information for Adjustments, Lubrication and Wiring.

## 1. GENERAL

a. The Model 28 Multiple Wire Distributors are electromechanical units that transmit sequential, start-stop telegraphic signals from a parallel (multi-wire) input.

b. The Multiple Wire Distributor under an external control, such as push button or stunt box, will transmit control characters when these are set up externally by coding the

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distributor contacts. The distributors may also be used to translate continuous multi-wire intelligence into sequential start-stop signals for transmission or use with Teletype receiving equipment. The distributors are operable in neutral telegraph circuits at 120 volts .020 or .060 amp. DC line current and produce start-stop signals.

c. The Multiple Wire Distributors are installed in the following units:

LD8, LD13, LD801 --- Model 28 Automatic Send-Receive Sets equipped with LXD Transmitter Distributor Unit

LD9, LD16, LD800 --- Model 28 Send-Receive Page Printer and Receive Only Set

LD10 ----- Model 28 Sequential Selector Set

d. The LD8, LD9, LD10, LD13, and LD16 are for use with five level code and the LD800, LD801 are for use with eight level code.

e. The 173358 Modification Kit provides terminal board assembly for the apparatus cabinets LAC203\*\*, LAC204\*\*, and LAC205\*\*.

f. The double asterisk indicates a two letter (Bell System two digit) suffix to indicate paint finish.

g. The following loose parts, etc. are furnished with the LD8, LD13, and LD801 Multiple Wire Distributors:

Qty.	Part No.	Description	LD8	LD13	LD801
3	2191	Washer, Lock	X	X	X
1	2449	Washer, Lock	X	X	X
3	2669	Washer, Lock	X	X	X
3	7002	Washer, Flat	X	X	X
1	104124	Screw	X	X	X
1	117535	Washer, Flat	X	X	X
3	151722	Screw	X	X	X
3	153441	Screw		X	X
1	159394	Terminal Board Assembly	X		X
1	164991	Plate, Adapter (Right)	X	X	X
1	164992	Plate, Adapter (Left)	X	X	X
1	172985	Shaft w/Bearing	X	X	X

i. The following loose parts, etc. are furnished with the LD9, LD10, LD16 and

LD800 Multiple Wire Distributors:

Qty.	Part No.	Description	LD9	LD10	LD16	LD800
3	2191	Washer, Lock	X	X	X	X
2	2669	Washer, Lock	X	X	X	X
2	3598	Nut	X	X	X	X
1	7002	Washer, Flat	X	X	X	X
10	92265	Screw	X	X	X	X
1	121246	Clamp, Cable	X		X	X
2	124512	Washer, Flat	X	X	X	X
2	125231	Nut	X	X	X	X
1	151126	Spacer	X	X	X	X
2	151346	Screw	X	X	X	X
1	151693	Screw	X	X	X	X
1	151819	Wire Strap			X	
1	153441	Screw	X	X	X	X
1	157166	Gear, Helical	X	X	X	X
1	157171	Shaft, Intermediate	X	X	X	X
1	157288	Plate, Adapter	X	X	X	X
1	164971	Screw	X	X	X	X
1	164990	Cable Assembly	X		X	X
1	173358	Modification Kit	X		X	X
1	174057	Insulator	X	X	X	X

i. The 173358 Modification Kit (factory assembled when furnished with LD9, LD16, or LD800) consists of:

4	2191	Washer, Lock	1	151659	Screw
1	7002	Washer, Flat	2	153459	Terminal Board Assembly
1	121247	Clamp, Cable	1	157155	Cover w/Insulator
3	151346	Screw	1	159346	Insulator
1	151630	Screw	1	163428	Bracket Assembly

j. For part numbers and parts ordering information refer to Teletype Model 28 Multiple Wire Distributor Parts Bulletin 1159B.

2. INSTALLATION

a. Installation of LD8, LD13, or LD801 in Model 28 ASR Set (on LXD type LCXB Base)

(1) Replace 158017 Shaft, of LCXB Base, with 172985 Shaft. Remount gears from 158017 Shaft on 172985 Shaft.

(2) Mount the 164991 Right Adapter Plate and the 164992 Left Adapter Plate on top of respective sides of LCXB Base Casting with two 153441 Screws, two 2669 Lock Washers, 104124 Screw, and 2449 Lock Washer.

NOTE

The 164991 and 164992 Adapter Plates are not required for transmitter distributor base castings that are provided with mounting holes for LD unit.

(3) Slide the LD distributor under the 172985 Shaft, and place it in the rectangular opening of the LCXB Base. Mesh, align, and adjust the 164967 Gear (on shaft) and 157615 Gear (on LD). Secure the distributor with the 153441 Screw, 2669 Lock Washer, 117535 Flat Washer, three 151722 Screws, 2191 Lock Washers and 7002 Flat Washers.

NOTE

The following paragraph applies only if the 159394 Terminal Block Assembly is to be installed.

(4) Remove the 157155 Cover and mount the 159394 Terminal Board Assembly on the two threaded studs on the left side of the upper section of the cabinet. Secure it with two 3598 Nuts and 2191 Lock Washers. Route and secure the 164990 Cable so as to clear any moving parts. Replace the 157155 Cover and secure with 151630 Screw.

b. Installation of LD9, LD16, or LD800 in Model 28 Send-Receive Page Printer and Receive-Only Set.

(1) Replace the 151127, 151896 or 154663 Intermediate Gear Shaft with the 157171 Shaft. If the 151127 or the 151896 Intermediate Gear Shaft is being replaced, the spacers on either side of the intermediate gear are usable with the 157171 Shaft. If the 154663 Shaft is being replaced, a 151126 Spacer is required to replace the 154662 Spacer furnished with the 154663 Shaft. Re-assemble the 151129 Intermediate Gear and the 151131 "60 WPM", 151133 "75 WPM" or 151135 "100 WPM" (whichever is applicable) motor driven gear onto the 157171 Shaft.

(2) Mount the 157166 Gear on the 157171 Shaft with the 151693 Screw and 2191 Lock Washer, then tighten the nut on the shaft.

(3) Disconnect all leads from the motor terminal block. Transfer the terminal block and its associated parts (except the two 3598 Nuts and 2191 Lock Washers) to the terminal block bracket provided on the LD. Locate the 174057 Insulator immediately beneath the present upper 150966 Insulator before tightening the mounting screws.

(4) Mount the 157288 Adapter Plate above the keyboard filter position. If the filter is present, use the existing screws. If the filter is not present, use two 151346 Screws, 2191 Lock Washers, and 3598 Nuts.

(5) Remount the five name plates from the rear left hand corner of the keyboard or base to the 157288 Adapter Plate with the ten 92265 Screws in the following order from front to rear: code plate, serial number plate, patent plate, and Teletype plate. Mount the Underwriters' Laboratory plate in the remaining position.

(6) Remove and discard the 152460 or 154176 Connector Bracket on the keyboard or receive-only base. Retain all other parts mounted on the bracket.

(7) For keyboards LK6 and up only: Remove and discard the cable clamp and associated hardware which secures the keyboard cable to the left rear portion of the keyboard. Direct the 152467 Cable Connector into the base and out through the opening under the end of the local line feed lever.

(8) Mount the following retained keyboard connector parts (see Paragraph 2.b.(6)) on the 164985 Mounting Plate Assembly (the mounting plate should be removed to facilitate installation of the parts): two 152464 Insulators, 152467 Keyboard Connector with cable, two 151658 Screws and two 2191 Lock Washers 152462 Right Latch, 152463 Left Latch, and 86835 Spring. Connect the leads to the motor terminal board. The keyboard cable should be long enough so that the connector may be relocated to the mounting plate. If it is too short, loosen the cable by cutting the cable tie-in joints. Retie cable after relocation is completed.

(9) Place the LD distributor on the base so that the respective mounting holes are aligned. Mesh, align and adjust the 157165 Gear (on LD) to the 157166 Gear (on intermediate gear assembly) for minimum amount of play without binding at the closest point. Secure the LD using the 164971 Shoulder Screw, 153441 Screw, two 125231 Nuts, two 2669 Lock Washers, and two 124512 Flat Washers.

c. The 173358 Modification Kit

NOTE

Paragraphs 2.c.(1) through 2.c.(3) are factory assembled when the kit is furnished with LD9, LD16, and LD800. The installation of this modification kit is made prior to the installation of the keyboard or base into the cabinet.

(1) Place the 159346 Insulator between the ears of the 163428 Bracket Assembly with the Nos. 81 through 100 toward the single ear.

(2) Assemble the two 153459 Terminal Board Assemblies to the 163428 Bracket Assembly as follows:

(a) Use two 151346 Screws and 2191 Lock Washers to mount the lower terminal board assembly. Place one screw in the rear lower hole adjacent to terminal 120; place the other screw in the front upper hole.

(b) Place a 151346 Screw and 2191 Lock Washer in the upper front hole of the upper terminal board assembly adjacent to terminal 81.

(c) Place the 164990 Cable into the 121247 Cable Clamp. Insert the 151659 Screw through a 2191 Lock Washer, 7002 Washer, the cable clamp and the lower rear hole of the upper terminal board assembly. The cable should lay between the two terminal board assemblies with the flat of the cable clamp away from the terminal boards.

(3) Connect the 164990 Cable to the upper terminal board according to Wiring Diagram 4113WD furnished with the Multiple Wire Distributor.

(4) Pertains to LD16 Unit only. A 151819 Wire Strap is provided in the terminal board assembly furnished with the LD16 Unit. The strap is necessary in order to effect single break-make contact operation.

(5) Remove and retain the 74567 Screw, 2449 Lock Washer and 2846 Washer that mount the cradle hinge to the left cradle rail. Remove and retain the 125218 Nut from the 151521 Left Front Vibration Mount Stud. Remove and retain the 2449 Lock Washer and 151955 Cable Guide.

(6) Mount the 163428 Bracket Assembly to the left front cradle rail using the 74567 Screw, 2449 Lock Washer, and 2846 Washer retained in Paragraph (5). Place the 151955 Cable Guide over the left front vibration mount stud and on top of the 163428 Bracket Assembly mounting extension. Install the 125218 Nut and the 2449 Lock Washer retained in Paragraph (5) on the 151521 Vibration Mount Stud.

(7) Install the keyboard or base into the cabinet (see Teletype Specification 5759S furnished with the Model 28 Printer Set).

(8) Insert the keyboard cable coming from the electrical service unit through the lower 151955 Cable Guide (from the bottom), then through the 121246 Cable Clamp. Install the 157155 Cover and fasten both the cover and the 121246 Cable Clamp using a 151631 Screw. Draw the cable relatively taut through the cable clamp so that the cable is directed away from the type box clutch.

d. Installation of LD10 in Model 28 Sequential Selector - Follow steps listed in Paragraphs 2.b.(1) through 2.b.(5) and Paragraph 2.b.(9).

### 3. ADJUSTMENTS AND LUBRICATION

25X1A a. Refer to [REDACTED] Bulletin 234B for standard adjustments and lubrication.

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- b. Apply a light film of grease to all newly installed gears.

NOTE

Secure all cords, cables, and wires where necessary to keep them away from moving parts.

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